

Please amend the claims as follows.

1-13. (Cancelled)

14. (Currently amended) A method for fabricating a substantially metal part, comprising the steps of:

a. providing a skeleton of interconnected adhered metal powder having a network of interconnected porosities throughout, said metal powder composed of two or more elements, chosen as in step e below;

b. providing an infiltrant comprising:

i. the same elements as are in the skeleton;  
and

ii. melting point depressant;

the infiltrant having a composition that is a liquidus composition for an infiltration temperature, the liquidus composition and infiltration temperature chosen as in step e below;

c. infiltrating said skeleton at said infiltration temperature with said infiltrant in liquid form, said infiltration driven primarily by capillarity;

d. subjecting said infiltrated skeleton to conditions such that a portion of said melting point depressant diffuses from said infiltrated porosities into said metal powder, and at least partial diffusional solidification occurs; and

e. choosing said metal powder composition, melting point depressant, infiltrant composition and infiltration temperature such that during diffusional solidification of said infiltrant, relative ratios, of components other than melting point depressant, in said liquid infiltrant not yet solidified, remain substantially constant.

15. (Original) The method of claim 14, said melting point depressant consisting essentially of a single element.

16. (Original) The method of claim 14, said melting point depressant consisting essentially of two or more elements, all of which have similar mass transport characteristics relative to said elements of said skeleton.

17. (Original) The method of claim 14, said step of subjecting said infiltrated skeleton to conditions such that at least partial diffusional solidification occurs comprising subjecting said infiltrated skeleton to constant temperature conditions such that at least partial isothermal solidification occurs.

18. (Original) The method of claim 14, said step of subjecting said infiltrated skeleton to conditions such that at least partial diffusional solidification occurs comprising subjecting said infiltrated skeleton to reducing temperature conditions.

19. (Original) The method of claim 14, said skeleton further comprising melting point depressant.

20. (Original) The method of claim 14, said skeleton being substantially free of melting point depressant.

21. (Previously amended) The method of claim 14, said step of choosing comprising choosing said metal powder

composition, melting point depressant, infiltrant composition and infiltration temperature such that a liquidus composition and a solidus composition of said infiltrant, that are joined by a tie line on an equilibrium phase diagram, both lie on a line of substantially constant relative proportions of non-MPD components of said infiltrant.

22. (Previously amended) The method of claim 21, said step of choosing comprising choosing said metal powder composition, melting point depressant, infiltrant composition and infiltration temperature such that the composition of said skeleton, lies on said line of substantially constant relative proportions of non-MPD components of said infiltrant.

23-80. (Canceled)